IFW

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(PTO ASSISTANCE)

Application: 09/535,367 Examiner: Canella GAU: 1649

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DOC CODE	DOC DATE	MISCELLANEOUS
☐ 1449		☐ Continuing Data
☐ IDS		☒ Foreign Priority
☐ CLM		☐ Document Legibility
☐ IIFW		☐ Fees
☐ SRFW		☐ Other
☐ DRW		
☐ OATH		
☐ 312		
☐ SPEC		

[RUSH] **MESSAGE:** A 35 U.S.C. 119(a)-(d) foreign priority claim cannot be based on a U.S. application. Please make all necessary corrections to file wrapper & specification. See MPEP 1893.03(c): Priority under 35 U.S.C. 120." THANK YOU

[XRUSH] **RESPONSE:** A PCT application can be used as a foreign priority document. Please see the attached examples of recently issued patents: US 6,884,771, US 6,887,974, US 6,855,559, US 6,800,604, US 6,790,624.

INITIALS: KAC

NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.

REV 10/04

US006884771B1

(12) **United States Patent**
Acton et al.

(10) **Patent No.: US 6,884,771 B1**
(45) **Date of Patent: Apr. 26, 2005**

(54) **ANGIOTENSIN CONVERTING ENZYME HOMOLOG AND USES THEREFOR**

(75) Inventors: **Susan Acton**, Lexington, MA (US); **Keith E. Robison**, Wilmington, MA (US); **Frank Y. Hsieh**, Lexington, MA (US)

(73) Assignee: **Millennium Pharmaceuticals, Inc.**, Cambridge, MA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 472 days.

(21) Appl. No.: **09/635,501**

(22) Filed: **Aug. 9, 2000**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/407,427, filed on Sep. 29, 1999, which is a continuation-in-part of application No. 09/163,648, filed on Sep. 30, 1998, which is a continuation-in-part of application No. 08/989,299, filed on Dec. 11, 1997.

(30) **Foreign Application Priority Data**

Sep. 29, 1999 (WO) PCT/US99/22976

(51) **Int. Cl.**[7] **A51K 38/00**

(52) **U.S. Cl.** **514/2**; 514/12; 530/350; 530/361; 424/94.1; 424/94.6; 435/183; 435/195

(58) **Field of Search** 514/2, 12; 530/350, 530/361; 424/94.1, 94.6; 435/183, 195; 536/23.5; 800/7

(56) **References Cited**

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(74) *Attorney, Agent, or Firm*—Millennium Pharmaceuticals, Inc.

(57) **ABSTRACT**

The present invention relates to the discovery of novel genes encoding an angiotensin converting enzyme, Angiotensin Converting Enzyme-2 (ACE-2). The invention provides therapeutics, prognostic and diagnostics methods for treating blood pressure related disorders as well as various types of allergic conditions, among others. Also disclosed are screening assays for identifying compounds for treating and preventing these conditions.

25 Claims, 23 Drawing Sheets

US006887974B2

(12) **United States Patent**
Pathak

(10) **Patent No.: US 6,887,974 B2**
(45) **Date of Patent: May 3, 2005**

(54) **CROSSLINKING AGENTS AND METHODS OF USE**

(75) Inventor: **Chandrashekhar P. Pathak**, Austin, TX (US)

(73) Assignee: **Incept LLC**, Lexington, MA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 421 days.

(21) Appl. No.: **10/068,807**

(22) Filed: **Feb. 5, 2002**

(65) **Prior Publication Data**

US 2002/0114775 A1 Aug. 22, 2002

Related U.S. Application Data

(62) Division of application No. 09/147,897, filed on Aug. 30, 1999.

(60) Provisional application No. 60/026,526, filed on Sep. 23, 1996, provisional application No. 60/039,904, filed on Mar. 4, 1997, and provisional application No. 60/040,417, filed on Mar. 13, 1997.

(30) **Foreign Application Priority Data**

Sep. 22, 1997 (WO) PCT/US97/16897

(51) **Int. Cl.**[7] **C09F 15/00**; C08G 63/48; C08G 63/08

(52) **U.S. Cl.** **530/200**; 530/350; 530/380; 530/382; 525/54.1; 525/54.11; 525/54.2; 528/354; 528/361

(58) **Field of Search** 530/200, 350, 530/380, 382; 525/54.1, 54.11, 54.2; 528/354, 361

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Assistant Examiner—Abdel A. Mohamed
(74) *Attorney, Agent, or Firm*—Patterson, Thuente, Skaar & Christensen, P.A.

(57) **ABSTRACT**

Polymeric crosslinking agents are disclosed that have an inert water soluble polymeric component, biodegradable components, functional components reactive with chemical groups on a protein, for example, amine or thiol groups. The inert polymeric component may be flanked at each end with a biodegradable component which is flanked at each end with a protein reactive functional component. A polymeric crosslinking agent is disclosed having a biodegradable component, polyalkylene oxide, and at least three reactive functional groups that are each capable of forming a covalent bond in water with at least one functional group such as an amine, thiol, or carboxylic acid.

25 Claims, 7 Drawing Sheets

US006855559B1

(12) **United States Patent**
Christensen et al.

(10) **Patent No.: US 6,855,559 B1**
(45) **Date of Patent: Feb. 15, 2005**

(54) **REMOVAL OF EMBEDDING MEDIA FROM BIOLOGICAL SAMPLES AND CELL CONDITIONING ON AUTOMATED STAINING INSTRUMENTS**

(75) Inventors: **Kimberly Christensen**, Tucson, AZ (US); **Ethel R. Macrea**, Tucson, AZ (US); **Noemi Sebastiao**, Tucson, AZ (US)

(73) Assignee: **Ventana Medical Systems, Inc.**, Tucson, AZ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 81 days.

(21) Appl. No.: **09/721,096**

(22) Filed: **Nov. 22, 2000**

Related U.S. Application Data

(60) Provisional application No. 60/099,018, filed on Sep. 3, 1998.

(30) **Foreign Application Priority Data**

Feb. 26, 1999 (WO) PCT/US99/04181
Sep. 3, 1999 (WO) PCT/US99/20353

(51) **Int. Cl.**[7] **G01N 1/18**
(52) **U.S. Cl.** **436/177**; 436/174; 436/175; 436/139
(58) **Field of Search** 436/139, 174–177; 422/61, 100, 58; 427/2.11; 455/40.52, 40.5

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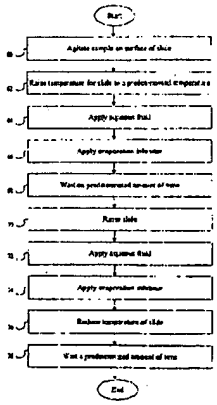
Primary Examiner—Yelena G. Gakh
(74) *Attorney, Agent, or Firm*—McDonnell Boehnen Hulbert & Berghoff LLP

(57) **ABSTRACT**

The present invention provides reagents for use in an automated environment for removing or etching embedding media by exposing a biological sample to be stained in histochemical or cytochemical procedures without the dependence on organic solvents. The reagents comprise components optimized to facilitate removal or etching of the embedding media from the biological sample. The present invention also provides reagents for use in an automated environment for cell conditioning biological samples wherein the cells are predisposed for access by reagent molecules for histochemical and cytochemical staining procedures. The reagents comprise components optimized to facilitate molecular access to cells and cell constituents within the biological sample.

16 Claims, 8 Drawing Sheets



US006800604B2

(12) **United States Patent**
Gurney et al.

(10) **Patent No.: US 6,800,604 B2**
(45) **Date of Patent: Oct. 5, 2004**

(54) **POLYPEPTIDES THAT INHIBIT HUMAN SERUM-INDUCED CLEAVAGE OF HEPATOCYTE GROWTH FACTOR**

(75) Inventors: **Austin L. Gurney**, Belmont, CA (US); **Daniel K. Kirchhofer**, Los Altos, CA (US); **William I. Wood**, Hillsborough, CA (US)

(73) Assignee: **Genentech, Inc.**, South San Francisco, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 105 days.

(21) Appl. No.: **09/742,201**

(22) Filed: **Dec. 19, 2000**

(65) **Prior Publication Data**

US 2002/0123091 A1 Sep. 5, 2002

Related U.S. Application Data

(60) Provisional application No. 60/253,665, filed on Nov. 28, 2000.

(30) **Foreign Application Priority Data**

Feb. 11, 2000 (WO) PCT/US00/03565
Mar. 15, 2000 (WO) PCT/US00/06884

(51) **Int. Cl.**[7] **C07K 14/00**; A61K 38/00

(52) **U.S. Cl.** **514/2**; 530/300; 530/350; 514/12; 424/85.1; 424/198.1

(58) **Field of Search** 530/300, 350, 530/351; 514/2, 12; 424/85.1, 184.1, 192.1, 198.1

(56) **References Cited**

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Primary Examiner—Elizabeth Kemmerer
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(74) *Attorney, Agent, or Firm*—Paul Naik; Craig Svoboda

(57) **ABSTRACT**

Compositions and methods are disclosed for stimulating or inhibiting angiogenesis and/or cardiovascularization in mammals, including humans. Pharmaceutical compositions are based on polypeptides or antagonists thereto that have been identified for one or more of these uses. Disorders that can be diagnosed, prevented, or treated by the compositions herein include trauma such as wounds, various cancers, and disorders of the vessels including atherosclerosis and cardiac hypertrophy. In addition, the present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cell comprising those nucleic acid sequences, chimerie polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

27 Claims, 5 Drawing Sheets

US006790624B2

(12) **United States Patent**
Mayer

(10) **Patent No.: US 6,790,624 B2**
(45) **Date of Patent: Sep. 14, 2004**

(54) **COILED-COIL MEDIATED HETERODIMERIZATION FUNCTIONAL INTERACTION TRAP**

(75) Inventor: **Bruce J. Mayer**, Tolland, CT (US)

(73) Assignee: **The University of Connecticut**, Farmington, CT (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 238 days.

(21) Appl. No.: **09/816,756**

(22) Filed: **Mar. 24, 2001**

(65) **Prior Publication Data**

US 2002/0037999 A1 Mar. 28, 2002

Related U.S. Application Data

(60) Provisional application No. 60/141,896, filed on Jun. 30, 1999.

(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**[7] **G01N 33/53**

(52) **U.S. Cl.** **435/7.1**; 435/6; 435/5; 435/4; 530/350; 536/23.4

(58) **Field of Search** 435/7.1, 6, 5, 4; 530/350, 324; 536/23.4

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Primary Examiner—T. D. Wessendorf
(74) *Attorney, Agent, or Firm*—McCarter & English LLP

(57) **ABSTRACT**

Fusion proteins containing coiled-coil heterodimerization domains substituted for modular protein binding domains useful for validating functionally relevant protein-protein interactions, directing enzymes to specific substrates, and screening fusion libraries for functionally important interaction partners.

2 Claims, 3 Drawing Sheets